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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/031,160	04/12/2002	Harry Jost	304-777	4980

7590 07/23/2003

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EXAMINER

HO, THOMAS Y

ART UNIT

PAPER NUMBER

3677

DATE MAILED: 07/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/031,160

Applicant(s)

JOST, HARRY

Examiner

Thomas Y Ho

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 June 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.

- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4. 6) ☐ Other: _____

DETAILED ACTION

Specification

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- ~~(b) CROSS-REFERENCE TO RELATED APPLICATIONS.~~
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Content of Specification

- (a) Title of the Invention: See 37 CFR 1.72(a) and MPEP § 606. The title of the invention should be placed at the top of the first page of the specification unless the title is provided in an application data sheet. The title of the invention should

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be brief but technically accurate and descriptive, preferably from two to seven words may not contain more than 500 characters.

- (b) Cross-References to Related Applications: See 37 CFR 1.78 and MPEP § 201.11.
- (c) Statement Regarding Federally Sponsored Research and Development: See MPEP § 310.
- (d) Incorporation-By-Reference Of Material Submitted On a Compact Disc: The specification is required to include an incorporation-by-reference of electronic documents that are to become part of the permanent United States Patent and Trademark Office records in the file of a patent application. See 37 CFR 1.52(e) and MPEP § 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text were permitted as electronic documents on compact discs beginning on September 8, 2000.

Or alternatively, Reference to a "Microfiche Appendix": See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.

- (e) Background of the Invention: See MPEP § 608.01(c). The specification should set forth the Background of the Invention in two parts:
 - (1) Field of the Invention: A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions of the subject matter of the claimed invention. This item may also be titled "Technical Field."
 - (2) Description of the Related Art including information disclosed under 37 CFR 1.97 and 37 CFR 1.98: A description of the related art known to the applicant and including, if applicable, references to specific related art and problems involved in the prior art which are solved by the applicant's invention. This item may also be titled "Background Art."
- (f) Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.

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- (g) Brief Description of the Several Views of the Drawing(s): See MPEP § 608.01(f). A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74.
- (h) Detailed Description of the Invention: See MPEP § 608.01(g). A description of the preferred embodiment(s) of the invention as required in 37 CFR 1.71. The description should be as short and specific as is necessary to describe the invention adequately and accurately. Where elements or groups of elements, compounds, and processes, which are conventional and generally widely known in the field of the invention described and their exact nature or type is not necessary for an understanding and use of the invention by a person skilled in the art, they should not be described in detail. However, where particularly complicated subject matter is involved or where the elements, compounds, or processes may not be commonly or widely known in the field, the specification should refer to another patent or readily available publication which adequately describes the subject matter.
- (i) Claim or Claims: See 37 CFR 1.75 and MPEP § 608.01(m). The claim or claims must commence on separate sheet (37 CFR 1.52(b)). Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation. There may be plural indentations to further segregate subcombinations or related steps. See 37 CFR 1.75 and MPEP § 608.01(i)-(p).
- (j) Abstract of the Disclosure: See MPEP § 608.01(f). A brief narrative of the disclosure as a whole in a single paragraph of 150 words or less commencing on a separate sheet following the claims. In an international application which has entered the national stage (37 CFR 1.491(b)), the applicant need not submit an abstract commencing on a separate sheet if an abstract was published with the international application under PCT Article 21. The abstract that appears on the cover page of the pamphlet published by the International Bureau (IB) of the World Intellectual Property Organization (WIPO) is the abstract that will be used by the USPTO. See MPEP § 1893.03(e).
- (k) Sequence Listing. See 37 CFR 1.821-1.825 and MPEP §§ 2421-2431. The requirement for a sequence listing applies to all sequences disclosed in a given application, whether the sequences are claimed or not. See MPEP § 2421.02.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(I) Claims 1, 3-6, 8-14, 16, and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Davlin USPN4316624.

As to claims 1, 3-6, 8-14, 16, and 18, Davlin discloses:

- A seal adjacent to a wall of a media-carrying area, which seals the sealing system when the parts 11/12 are braced against one another; the parts have mutually precisely complimentary sealing surfaces 16/17, which are directly pressed onto one another to form a clearance-free seal at a contact surface, and the contact surface between the sealing surfaces is limited to a narrow area directly adjacent to the media-carrying area (Figure 3 of Davlin is an exemplary embodiment showing the claimed limitations).
- The contact surface is loaded with a specific sealing pressure, which is in the elastic deformation range of a material of which the parts consist. The sealing pressure in Davlin is created by coupling nut 13, which can be used to apply a wide range of specific pressures. Because the parts 11/12 are made of metal (col.8, ln.28-42), all metals are known to elastically deform for an initial range of force, and because the coupling nut 13 can generate a range of forces from no force on upwards, the elastic deformation limitation is met.
- The sealing surfaces have a mutual guidance transverse to the media area wall. Any surface transverse to the media area wall can act as a guidance.
- The media-carrying area walls of both parts are truly aligned.

- Adjacent to the media-carrying area wall, the sealing surface of one of the parts has a sealing lip 16 projecting towards the other part and which is received in a corresponding half-recess 17 on the sealing surface of the other part.
- The sealing pressure is predetermined by a stop 30 (Figure 1) provided by a clamping device 13.
- Stop faces between the parts, which form a clearance between the parts, whose width is sufficiently large that on bracing the sealing system up to the closing of the clearance, a sealing pressure is built up by the elastic deformation of the parts. The clearance is the space defined between the flange 27 on part 12 and the opposing face of the part 11.
- An elastically deformable portion of the parts interposed between a clamping device and the sealing surfaces. Any metal portion is inherently elastically deformable for a range of loading.
- The parts are made from an equally hard material (col.8, ln.28-42). It should be noted that Davlin calls 10 the “access union” which is in turn composed of parts 11 and 12.
- Provided for aseptic applications. This limitation holds no patentable weight because it is intended use and has no bearing on the claimed structure.
- The specific sealing pressure is in the range of 20% to 80% of the yield point of the material forming the parts. The nature of the assembly allows the specific sealing pressure to be set at any reasonable load from zero upwards.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

(II) Claims 2 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davlin USPN4316624 in view of cited case law.

~~As to claims 2 and 17, Davlin discloses:~~

- A sealing system as detailed in paragraph (I) above.

Davlin fails to disclose or suggest:

- The contact surface has a width of 1/5000 to 1/50 of a nominal width of the sealing system.
- The contact surface has a width of between 0.01 and 1mm.

Davlin fails to explicitly state the dimensions of the width of the sealing surface created between 16 and 17, though a sealing surface is clearly shown. A change in the size of a prior art device is a design consideration within the skill of the art. In re Rose, 220 F.2d 459, 105 USPQ 237 (CCPA 1955). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the size of the sealing surface disclosed by Davlin to be of any reasonable size because change of size of a prior art device is a design consideration.

(III) Claims 7 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davlin USPN4316624 in view of Banker USPN5765836.

As to claims 7 and 15, Davlin discloses:

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- A sealing system as detailed in paragraph (I) above.
- Guide sections are provided on both parts. Any portions of parts 11 and 12 can be considered guide sections as claimed; the guide sections situated transversely to and spaced from the sealing surfaces.

Banker discloses the following not disclosed by Davlin:

- For pre-centering of the two parts 62/72, the guide sections have insertion bevels 82/102 for bringing the two parts together, and a separating gap is formed between the guide sections for aligning the two parts before the sealing surfaces are pressed together (col.6, ln.58-68).
- The sealing surfaces are produced by profile precision turning by means of mutually complimentary profile cutting edges (col.4, ln.10-20).

Banker discloses the guide sections to align and guide seal parts (col.6, ln.58-68). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the portions of the sealing parts disclosed by Davlin to have guide bevels, as taught by Banker, to align and guide the parts into position.

Banker discloses the production of sealing surfaces using precision turning so the tolerances of the sealing surfaces approach the tolerances of the carbide tool insert. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the sealing surfaces disclosed by Davlin to be produced by turning, as taught by Banker, to limit tolerances.

(IV) Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Davlin USPN4316624 in view of Powers USPN5553902.

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As to claim 19, Davlin discloses:

- A sealing system as disclosed in paragraph (I) above.

Powers discloses the following not disclosed by Davlin:

- Surface portions 50/52 of the sealing surfaces are provided as reserve sealing surfaces adjacent to the contact surface 38/42, and which have a complimentary design.

Powers discloses the reserve sealing surfaces for use as additional sealing (col.4, ln.50-53). Furthermore, the two flat surfaces 50 and 52 are complementary. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the sealing surfaces disclosed by Davlin to have complementary reserve sealing surfaces, as taught by Powers, for use as additional sealing.

(V) Claims 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davlin USPN4316624 in view of Powers USPN5553902, and further in view of cited case law.

As to claims 20-21, Davlin discloses:

- A sealing system as disclosed in paragraphs (I) and (IV) above.
- An annular clearance (between 27 and the opposing face on 11).

Davlin fails to disclose or suggest:

- An annular clearance with a size of 1/15000 to 1/500 of a nominal width of the sealing system.
- The clearance is 1/15000 to 1/100 of a nominal width of the sealing system.

Davlin fails to explicitly state the dimensions of the annular clearance, though an annular clearance is clearly shown. A change in the size of a prior art device is a design consideration within the skill of the art. In re Rose, 220 F.2d 459, 105 USPQ 237 (CCPA 1955). Therefore, it

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would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the size of the annular clearance disclosed by Davlin to be of any reasonable size because change of size of a prior art device is a design consideration.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

USPN1913246 to Saine discloses a splitproof tapered machine joint pipe having complementary sealing surfaces.

USPN3515415 to Clark discloses a jamb nut with a collar retainer with sealing surfaces.

USPN3870351 to Matsuki discloses a tube joint structure having complementary sealing surfaces.

USPN4555129 to Davlin discloses an adapter union having sealing surfaces.

USPN4611838 to Heilmann discloses a fluidtight pipe joint having complementary sealing surfaces.

USPN4659116 to Cameron discloses a pipe union having complementary sealing surfaces and a secondary sealing component.

USPN4732416 to Dearden discloses pipe connectors having complementary sealing surfaces and clearances beside sealing surfaces.

USRE34144 to Leigh discloses a metal gasket have complementary sealing surfaces mating with two pipes.

USPN5340163 to Merrer discloses a safety sealing conduit connector.

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USPN5645301 to Kingsford discloses a fluid transport coupling having complementary sealing surfaces between two pipes, as well as secondary sealing surfaces.

USPN5725259 to Dials discloses a conduit coupling having complementary sealing surfaces and annular clearances.

USPN6116658 to Bohlen discloses a counter torque tube connection having sealing surfaces and annular clearances next to them.

USPN6412831 to Noel discloses a threaded connection of metal pipes having complementary sealing surfaces.


USPN6485063 to Olivier discloses a connection having complementary sealing surfaces and annular clearances and secondary sealing surfaces.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas Y Ho whose telephone number is (703)305-4556. The examiner can normally be reached on M-F 10:00AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. J Swann can be reached on (703)306-4115. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9326 for regular communications and (703)872-9327 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)306-1113.

TYH
July 16, 2003


J. J. SWANN
SUPERVISORY PATENT EXAMINER
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